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Supplemental Material

Prenatal Organophosphorus Pesticide Exposure and Child Neurodevelopment at 24 Months: An Analysis of Four Birth Cohorts

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Table S1. Exposure Distributions of Individual Dialkylphosphate Metabolites by Center and Measurement Period

| | CHAMACOS (n = 375) | | | HOME (n = 262) | | | | | | | | |
|-------------------------------|--------------------|--|---|----------------|---|---|-------------------|--|---|-----------------------|---|---|
| First Trimester Spot Urine | LOD | % <loda< th=""><th>N Missing due to analytic interference</th><th>LOD</th><th>% <loda< th=""><th>N missing due to analytic interference</th><th></th><th></th><th></th><th></th><th></th><th></th></loda<></th></loda<> | N Missing due to analytic interference | LOD | % <loda< th=""><th>N missing due to analytic interference</th><th></th><th></th><th></th><th></th><th></th><th></th></loda<> | N missing due to analytic interference | | | | | | |
| | | | | | | | | | | | | |
| Diethylphosphate | 0.2 - 0.8 | 36.0% | 2 | 0.6 | 30.2% | 0 | | | | | | |
| Diethylthiophosphate | 0.1 - 0.6 | 45.9% | 2 | 0.4 | 22.5% | 0 | | | | | | |
| Diethyldithiophosphate | 0.1 - 0.3 | 36.3% | 0 | 0.4 | 58.0% | 0 | | | | | | |
| Dimethylphosphate | 0.6 - 1.2 | 41.9% | 2 | 0.6 | 27.5% | 0 | | | | | | |
| Dimethylthiophosphate | 0.2 - 1.1 | 27.7% | 0 | 0.2 | 13.0% | 0 | | | | | | |
| Dimethyldithiophosphate | 0.1 - 1.0 | 45.3% | 3 | 0.5 | 37.4% | 0 | | | | | | |
| | CHAMACOS (n = 355) | | | HOME (n = 258) | | | Columbia (n = 63) | | | Mount Sinai (n = 234) | | |
| Third Trimester Spot Urine | LOD | % <loda< th=""><th>N Missing due to analytic interference</th><th>LOD</th><th>% <loda< th=""><th>N Missing due to analytic interference</th><th>LOD</th><th>% <lod< th=""><th>N Missing due to analytic interference</th><th>LOD</th><th>% <lod< th=""><th>N Missing due to analytic interference</th></lod<></th></lod<></th></loda<></th></loda<> | N Missing due to analytic interference | LOD | % <loda< th=""><th>N Missing due to analytic interference</th><th>LOD</th><th>% <lod< th=""><th>N Missing due to analytic interference</th><th>LOD</th><th>% <lod< th=""><th>N Missing due to analytic interference</th></lod<></th></lod<></th></loda<> | N Missing due to analytic interference | LOD | % <lod< th=""><th>N Missing due to analytic interference</th><th>LOD</th><th>% <lod< th=""><th>N Missing due to analytic interference</th></lod<></th></lod<> | N Missing due to analytic interference | LOD | % <lod< th=""><th>N Missing due to analytic interference</th></lod<> | N Missing due to analytic interference |
| Diethylphosphate | 0.2 | 42.3% | 0 | 0.6 | 41.9% | 0 | 0.3 | 41.3% | 0 | 0.3 | 61.5% | 7 |
| Diethylthiophosphate | 0.1 | 0.9% | 0 | 0.4 | 38.0% | 0 | 0.4 | 33.3% | 0 | 0.4 | 21.4% | 0 |
| Diethyldithiophosphate | 0.1 | 73.5% | 0 | 0.4 | 78.7% | 0 | 0.1 | 52.4% | 0 | 0.2 | 92.7% | 2 |
| Dimethylphosphate | 0.6 | 5.4% | 0 | 0.6 | 44.2% | 0 | 0.5 | 44.4% | 0 | 0.5 | 46.6% | 0 |
| Dimethylthiophosphate | 0.2 | 0.8% | 0 | 0.2 | 10.9% | 0 | 0.7 | 50.8% | 0 | 0.4 | 11.1% | 2 |
| Dimethyldithiophosphate | 0.1 | 41.7% | 3 | 0.5 | 54.3% | 0 | 0.2 | 68.3% | 0 | 0.3 | 78.6% | 0 |

^a This column only includes values below the LOD when instrument read values were unavailable. CHAMACOS and HOME received some instrument read values below the LOD. For these studies, values below the LOD were only imputed if instrument read values were unavailable.

 Table S2. Distributions of Dialkylphosphate Metabolite Sums in Individual Cohorts

| Distributions of Dialkylphosphate Metabolite Sums | Geometric Mean (GSD) (nmol/gC) | Min nmol/gC | 25% nmol/gC | 50% nmol/gC | 75% nmol/gC | Max nmol/gC |
|---|-----------------------------------|----------------|-------------|----------------|----------------|----------------|
| CHAMACOS (n =377) | | | | | | |
| Total Dialkylphosphate (∑DAP) | 111.70 (2.75) | 4.69 | 56.02 | 107.54 | 225.58 | 3003.04 |
| Total Diethylphosphate (∑DEP) | 15.94 (2.89) | 0.15 | 7.78 | 16.35 | 33.90 | 319.89 |
| Total Dimethylphosphate (∑DMP) | 71.58 (3.47) | 0.64 | 32.89 | 78.34 | 168.21 | 2999.54 |
| HOME (n = 265) | | | | | | |
| Total Dialkylphosphate (∑DAP) | 76.17 (3.41) | 2.32 | 34.19 | 79.52 | 181.21 | 1715.39 |
| Total Diethylphosphate (∑DEP) | 11.16 (4.52) | 0.05 4.65 | | 14.18 | 34.44 | 199.07 |
| Total Dimethylphosphate (∑DMP) | 44.19 (4.50) | 0.07 | 16.94 | 44.00 | 117.96 | 1686.76 |
| Columbia (n = 60) | | | | | | |
| Total Dialkylphosphate (∑DAP) | 39.16 (9.87) | 0.04 | 17.69 | 57.25 | 146.23 | 2567.63 |
| Total Diethylphosphate (∑DEP) | 7.77 (23.53) | 0.00 | 5.58 | 20.03 | 49.39 | 231.80 |
| Total Dimethylphosphate (∑DMP) | 4.39 (134.50) | 0.00 | 2.16 | 22.02 | 118.48 | 2564.99 |
| Mount Sinai (n = 234) | | | | | | |
| Total Dialkylphosphate (∑DAP) | 73.80 (6.49) | 0.04 | 29.47 | 95.94 | 209.03 | 8498.60 |
| Total Diethylphosphate (∑DEP) | 11.46 (11.58) | 0.00 | 6.93 | 18.22 | 56.88 | 670.42 |
| Total Dimethylphosphate (∑DMP) | 40.09 (9.87) | 0.00 | 13.82 | 55.17 | 167.88 | 8498.46 |